

Exercise As A Remedy For Elderly People: A Review

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Abstract

Age-related changes, including declines in muscular strength, bone density, balance, and metabolic functions, increase the risk of chronic diseases, functional disability, and cognitive decline in elderly individuals. Regular physical activity and structured exercise have been extensively studied for their capacity to mitigate these declines and promote healthy ageing across physical, cognitive, and psychosocial domains. This review synthesises evidence from review articles, meta-analyses, and randomised controlled trials examining the effects of exercise on physical health, cognitive function, and mental well-being among older adults. The literature indicates that aerobic, resistance, balance, and multi-component exercise programmes significantly improve strength, mobility, and reduce fall risk. Furthermore, exercise has a positive impact on cognitive performance and mental health. These findings reinforce global recommendations for tailored exercise programmes to enhance quality of life and support healthy ageing.

Keywords: elderly people, physical activity, exercise intervention, physical function, cognitive function, balance, healthy ageing

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I. Introduction

Ageing is a natural biological process associated with progressive physiological decline affecting multiple systems, including musculoskeletal, cardiovascular, and neurological functions. These changes often result in reduced independence, increased susceptibility to chronic diseases, and diminished quality of life (World Health Organisation [WHO], 2020).

Common age-related issues include sarcopenia (loss of muscle mass), osteoporosis (reduced bone density), impaired balance, and cognitive decline. These conditions substantially elevate the risk of falls, disability, and mortality among elderly individuals (Cruz-Jentoft et al., 2019). As global ageing populations increase, the promotion of strategies that support healthy ageing has become a critical public health priority.

Regular physical activity and structured exercise interventions have emerged as cost-effective and non-pharmacological approaches to counteract age-related declines. Exercise not only improves physical health but also contributes to enhanced cognitive function and psychological well-being (Warburton & Bredin, 2017). This review aims to synthesise existing evidence on the effectiveness of exercise as a remedy for older adults across multiple health domains.

II. Methods

This review analysed findings from peer-reviewed literature, including systematic reviews, meta-analyses, and randomised controlled trials (RCTs) published in reputable journals.

Inclusion Criteria

- Studies involving participants aged 60 years and above
- Research examining structured exercise or physical activity interventions
- Outcomes related to physical health, cognitive function, or mental health
- Studies comparing exercise interventions with sedentary or control groups

Types of Exercise Interventions

- Aerobic exercise (e.g., walking, cycling)
- Resistance training (strength-based exercises)
- Balance and flexibility training
- Multi-component exercise programmes

III. Results

Effects on Physical Function

A large body of evidence supports the role of exercise in improving physical function among older adults. Resistance training has been shown to significantly increase muscle strength and mass, thereby reducing the risk of sarcopenia (Peterson et al., 2010). Similarly, aerobic exercise improves cardiovascular fitness and endurance.

Balance and functional training programmes have demonstrated strong effects in reducing fall risk. A meta-analysis by Sherrington et al. (2019) reported that structured balance exercises reduce falls by up to 23% among elderly individuals.

Exercise also enhances mobility and independence, enabling older adults to perform daily activities more effectively.

Effects on Cognitive Function

Exercise has been increasingly recognised for its neuroprotective benefits. Aerobic exercise, in particular, is associated with improved memory, executive function, and global cognition (Erickson et al., 2011).

Combined training programmes that integrate aerobic and resistance exercises show even greater cognitive benefits. Physical activity promotes increased cerebral blood flow, neurogenesis, and synaptic plasticity, all of which contribute to improved brain function (Kirk-Sanchez & McGough, 2014).

Exercise interventions have also been linked to the delayed onset of neurodegenerative diseases such as Alzheimer's disease.

Effects on Mental Health and Psychosocial Well-being

Exercise plays a crucial role in improving mental health among elderly individuals. Regular physical activity reduces symptoms of depression and anxiety while enhancing mood and emotional well-being (Mura & Carta, 2013).

Participation in group-based exercise programmes also fosters social interaction, reducing loneliness and improving overall life satisfaction. These psychosocial benefits are particularly important in ageing populations where social isolation is common.

IV. Discussion

The findings of this review highlight the multidimensional benefits of exercise for elderly people. Exercise acts as a holistic intervention that simultaneously targets physical, cognitive, and psychological health.

Multi-component exercise programmes appear to be the most effective, as they address multiple risk factors simultaneously. For instance, combining resistance training with balance exercises not only improves muscle strength but also reduces fall risk.

Despite strong evidence supporting exercise, barriers such as lack of motivation, fear of injury, and limited access to facilities often prevent elderly individuals from engaging in regular physical activity. Therefore, public health initiatives should focus on creating accessible, safe, and culturally appropriate exercise programmes.

Healthcare professionals play a key role in prescribing exercise tailored to individual needs, considering factors such as health status, mobility, and personal preferences.

V. Conclusion

Exercise is a powerful, non-pharmacological remedy that significantly enhances the physical, cognitive, and psychosocial health of elderly people. Regular participation in aerobic, resistance, and balance exercises can prevent chronic diseases, reduce fall risk, improve cognitive function, and enhance quality of life.

The evidence strongly supports global recommendations advocating for tailored, safe, and sustainable exercise programmes for older adults. Promoting physical activity should be a central component of healthy ageing strategies worldwide.

References

- [1]. Cruz-Jentoft, A. J., Bahat, G., Bauer, J., Boirie, Y., Bruyère, O., Cederholm, T., ... Zamboni, M. (2019). Sarcopenia: Revised European Consensus On Definition And Diagnosis. *Age And Ageing*, 48(1), 16–31.
- [2]. Erickson, K. I., Voss, M. W., Prakash, R. S., Basak, C., Szabo, A., Chaddock, L., ... Kramer, A. F. (2011). Exercise Training Increases The Size Of The Hippocampus And Improves Memory. *Proceedings Of The National Academy Of Sciences*, 108(7), 3017–3022.
- [3]. Kirk-Sanchez, N. J., & McGough, E. L. (2014). Physical Exercise And Cognitive Performance In The Elderly. *Current Neurology And Neuroscience Reports*, 14(12), 1–9.
- [4]. Mura, G., & Carta, M. G. (2013). Physical Activity In Depressed Elderly: A Systematic Review. *Clinical Practice And Epidemiology In Mental Health*, 9, 125–135.

- [5]. Peterson, M. D., Rhea, M. R., Sen, A., & Gordon, P. M. (2010). Resistance Exercise For Muscular Strength In Older Adults. *Ageing Research Reviews*, 9(3), 226–237.
- [6]. Sherrington, C., Fairhall, N. J., Wallbank, G. K., Tiedemann, A., Michaleff, Z. A., Howard, K., ... Lord, S. R. (2019). Exercise For Preventing Falls In Older People. *British Journal Of Sports Medicine*, 54(15), 905–911.
- [7]. Warburton, D. E., & Bredin, S. S. (2017). Health Benefits Of Physical Activity. *Current Opinion In Cardiology*, 32(5), 541–556.
- [8]. World Health Organization. (2020). WHO Guidelines On Physical Activity And Sedentary Behaviour. Geneva: WHO.